



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,021	11/19/2003	Brian J. Taylor	04AB026/YOD ALBR:0142/YOD	8807
7590 11/13/2007 Alexander M. Gerasimow Allen-Bradley Company, LLC 1201 South Second Street Milwaukee, WI 53204-2496				
EXAMINER PATEL, DHARTI HARIDAS				
ART UNIT 2836		PAPER NUMBER		
MAIL DATE 11/13/2007		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/718,021	Applicant(s) TAYLOR, BRIAN J.	
	Examiner Dharti H. Patel	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-34 and 51-75 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34, 51-75 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                 | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION


In view of the Notice of Appeal filed on 05/25/2007, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

 11/7/07  
MICHAEL SHERRY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9, 12-21, 24-34, 51-56, 59-64, 66, 68, 70, 72, and 74 are rejected under 35 U.S.C. 102(e) as being anticipated by Knox et al., Publication No. 2004/0252421.

With respect to Claim 1, Knox discloses a controller for a machine [Fig. 1 digital programmable motor overload protector 1], comprising: a machine mountable base [Fig. 3 housing base 41; par. 0020, the modular base housing portion] comprising a motor protection device [Fig. 3 the Digital Signal Processor DSP 55 in housing 46; par. 0008]; and a modular control unit [Fig. 5 modular control unit 2 containing microcontroller 75; par. 0104] replaceably mountable to the machine mountable base [par. 0030; all components are mounted to housing base 41 and are modularized/replaceable], wherein the modular control unit comprises control circuitry [modular control unit 2 contains microcontroller 75] configured to control the machine [the circuitry of microcomputer 75 allows the user to enter control commands and receive status updates of the motor being controlled- par. 0104-0109. The machine being controlled is the low voltage motor mentioned in paragraph 0002].

With respect to Claim 2, Knox discloses the motor protection device comprises a short-circuit protective device [col. 1 lines 0010 state ground faults are protected against. **A ground fault is a type of short circuit condition.** For illustrative purposes only, see the EC&M document enclosed. Fig. 4 trip contact relay 66 is a short circuit protective device that works in conjunction with the DSP; par. 0101. Line fuses 68 also provide short circuit/overload protection par. 0102].

With respect to Claim 3, Knox discloses the short-circuit protective device comprises an instantaneous trip [par. 0101, no time delay in tripping is specified, therefore the trip occurs instantaneously].

With respect to Claim 4, Knox discloses the short-circuit protective device comprises a magnetic circuit breaker [Fig. 4 trip contact 66 comprises a magnetic coil].

With respect to Claim 5, Knox discloses the motor protection device comprises a disconnect device [par. 0101; disconnect occurs via trip contact relay 66 which controls the on/off of the users motor contactor/circuit breaker].

With respect to Claim 6, Knox discloses the disconnect device comprises a local lockout [par. 0101- failsafe trip contact control circuit 65 electrically resets the users motor contactor/circuit breaker if it senses a failure in the DSP; and par. 0095 lines 16-22- reset supervisor 64 electrically locks out the DSP if operating conditions are unreliable; par. 0147- software will lockout the trip contacts from being reset].

With respect to Claim 7, Knox discloses the modular control unit comprises an overload protection device and a contactor [Fig. 4 trip contact relay 66 is an overload protection device that works in conjunction with the DSP 55, par. 0101].

With respect to Claim 8, Knox discloses the modular control unit comprises a programmable electronic overload [the device is a digital programmable motor overload relay; par. 0002; par. 0109 programming inputs entered through interface keypad 6].

With respect to Claim 9, Knox discloses the modular control unit comprises an electromagnetic contactor [Fig. 4 trip contact relay 66 with coil].

With respect to Claim 12, Knox discloses the modular control unit comprises a motor connection terminal [Fig. 3 trip contacts 33 connects to the users motor contactor/circuit breaker circuit].

With respect to Claim 13, Knox discloses the machine mountable base comprises a network terminal [par. 0147 lines 8-11; par 0027].

With respect to Claim 14, Knox discloses the machine mountable base comprises at least one sensor terminal [Fig. 3 terminal 36 connecting to current transformer 37; par. 0090].

With respect to Claim 15, Knox discloses the machine mountable base comprises at least one actuator terminal [Fig. 3 trip contacts 33].

With respect to Claim 16, Knox discloses a motor controller [Fig. 1 digital programmable motor overload protector 1], comprising: a motor mountable base [Fig. 3 housing base 41; par. 0020 modular base housing portion] comprising a short-circuit tripping disconnect [Fig. 4 trip contact relay 66 is a short circuit protective device that works in conjunction with the DSP 55]; and a replaceable control unit [Fig. 5 modular control unit 2 containing microcontroller 75; par. 0104; a module is replaceable] removably coupled to the motor mountable base, wherein the replaceable control unit comprises control circuitry [modular control unit 2 contains microcontroller 75] configured to control a motor [the circuitry of microcomputer 75 allows the user to enter control commands and receive status updates of the motor being controlled- par. 0104-0109. The machine configured to be controlled is any of the low voltage motors mentioned in paragraph 0002].

With respect to Claim 17, Knox discloses the short-circuit tripping disconnect comprises a magnetically tripping disconnect [Fig. 4 trip contact 66 comprises a magnetic coil].

With respect to Claim 18, Knox discloses the short-circuit tripping disconnect comprises a disconnect lockout [par. 0101- disconnect occurs via trip contact relay 66 which controls the on/off of the users motor contactor/circuit breaker. Failsafe trip contact control circuit 65 electrically resets the users motor contactor/circuit breaker if it senses a failure in the DSP; and par. 0095 lines 16-22- reset supervisor 64 electrically locks out the DSP if operating conditions are unreliable; par. 0147- software will lockout the trip contacts from being reset].

With respect to Claim 19, Knox discloses the motor mountable base comprises at least one communication terminal [par 0027].

With respect to Claim 20, Knox discloses that the at least one communication terminal comprises a machine network terminal adapter to facilitate networking of a plurality of machine components [par. 0027].

With respect to Claim 21, Knox discloses the replaceable control unit comprises an adjustable overload [the device is a digital programmable motor overload relay and therefore adjustable; par. 0002; par. 0109 programming inputs entered through interface keypad 6] and a contactor [Fig. 4 trip contact relay 66].

With respect to Claim 24, Knox discloses the replaceable control unit comprises at least one monitoring device [Fig. 3 terminal 36 connecting to current transformer 37; par. 0090].

With respect to Claim 25, Knox discloses the replaceable control unit comprises at least one diagnostic device [par. 0212 Table U3- FAIL DIAG code signals internal DSP diagnostic failure].

With respect to Claim 26, Knox discloses the replaceable control unit comprises at least one manual control mechanism [par. 0147 critical failure will result in a lockout. Par. 0215 Table U6 commands UAR and OAR- manual reset is required to clear the trip, Fig. 1 button 7, par. 0015].

With respect to Claim 27, Knox discloses a controller [Fig. 1 digital programmable motor overload protector 1] for a machine system [the machine system is the motor, its subcomponent parts, and the load the motor is driving], comprising: a modular control unit [Fig. 5 modular control unit 2 containing microcontroller 75; par. 0104] replaceably mountable to an on-machine motor protection base [par. 0030; all components are mounted to housing base 41], wherein the modular control unit comprises at least one motor control device [modular control unit 2 contains microcontroller 75, which protects/controls the motor] operable with at least one motor protection device [Fig. 3 the Digital Signal Processor DSP 55 in housing 46; par. 0008; par. 0095 lines 3-5]; of the on-machine motor protection base, wherein the modular control unit comprises control circuitry [modular control unit 2 contains microcontroller 75 which is the circuitry that allows the user to interface with the motor being controlled/protected] configured to control at least one machine [the motor being controlled/protected, par. 0002] in the machine system [the machine system is the combination of the motor, its subcomponent parts, and the load that it drives].



With respect to Claim 28, Knox discloses the on-machine motor protection base [Fig. 3 housing base 41; par. 0089].

With respect to Claim 29, Knox discloses the modular control unit is selected from a group consisting of a soft start motor controller, a variable frequency motor drive, and an adjustable overload protection device [the device is a digital programmable motor overload relay and is therefore adjustable; par. 0002; par. 0109 programming inputs entered through interface keypad 6].

With respect to Claim 30, Knox discloses the modular control unit comprises a machine network terminal adapter to facilitate networking of a plurality of components of the machine system [par. 0027].

With respect to Claim 31, Knox discloses a controller [Fig. 1 digital programmable motor overload protector 1] for a machine system, comprising: an on-machine base [Fig. 3 housing base 41; par. 0020 modular base housing portion] comprising a machine protection device [Fig. 3 the Digital Signal Processor DSP 55 in housing 46; par. 0008]; and a selectable control unit [Fig. 5 modular control unit 2 containing microcontroller 75; par. 0104. Microcontroller 75 is selectable because it allows the user to control the motor or request its status] replaceably mountable to the on-machine base, wherein the on-machine base and the selectable control unit are cooperative to provide desired on-machine controllability [DSP 55 of Fig. 4 in conjunction with microcontroller 75 of Fig. 5], wherein the selectable control unit comprises control circuitry [modular control unit 2 contains microcontroller 75 which is the circuitry that allows the user to interface with the motor being controlled/protected]

selected for a desired machine [the circuitry of microcomputer 75 allows the user to enter control commands and receive status updates of the motor being controlled- par. 0104-0109. The machine being controlled/protected the low voltage motor mentioned in paragraph 0002].

With respect to Claim 32, Knox discloses the machine protection device comprises a magnetically tripping disconnect [Fig. 4 trip contact relay 66 is an magnetic trip device that works in conjunction with the DSP 55, par. 0101].

With respect to Claim 33, Knox discloses the selectable control unit is selected from a group consisting of a soft start machine controller, a variable frequency machine drive, and an overload protection device [the device is a digital programmable motor overload relay; par. 0002; the microcontroller 75 has a primary function of protection].

With respect to claim 34, Knox discloses a controller [Fig. 1 digital programmable motor overload protector 1] for a system of distributed machines [the system of distributed machines is the motor, protector/controller 1, the motor's subcomponents, and the load being driven], comprising a machine mountable base [Fig. 3 housing base 41; par. 0020 modular base housing portion], comprising a short-circuit protective device [Fig. 3 the Digital Signal Processor DSP 55 in housing 46; par. 0008], and a disconnect device, and a modular control unit [Fig. 5 modular control unit 2 containing microcontroller 75; par. 0104] replaceably mountable to the machine mountable base [par. 0030], wherein the module control unit comprises control circuitry [modular control unit 2 contains microcontroller 75 which is the circuitry that allows the user to interface with the motor being controlled/protected] configured to control at least one machine in

the system of distributed machines [The machine is the motor being protected, paragraph 0002. The motor is part of a system of distributed machines comprising the motor, protector/ controller 1, the motor's subcomponents, and the load being driven].

With respect to claim 51, Knox discloses a machine [Fig. 1 digital programmable motor overload protector 1, and the motor it is mounted to], comprising: a motor; and a motor controller mounted to the motor, comprising: a modular base comprising motor protection circuitry; a modular control unit comprising motor control circuitry cooperatively operable with the motor protection circuitry, wherein at least one of the modular base and the modular control unit is selectively replaceable, and wherein the control circuitry is configured to control the motor [the limitations of this claim have previously been met by the limitations of the preceding claims 1, 16, 27, and 31].

With respect to claim 52, Knox discloses that the short-circuit protective device comprises an instantaneous trip [par. 0101, no time delay in tripping is specified, therefore the trip occurs instantaneously].

With respect to claim 53, Knox discloses the short-circuit protective device comprises a magnetic circuit breaker [Fig. 4 trip contact 66 comprises a magnetic coil].

With respect to claim 54, Knox discloses a motor mounted to the machine mountable base [Fig. 3 housing base 41; par. 0089].

With respect to claim 55, Knox comprises a machine system coupled to the motor as disclosed in Fig. 1.

With respect to claim 56, Knox discloses that the short-circuit protection device and the disconnect device are replaceable mountable to the machine mountable base [par. 0030].

With respect to Claim 59, Knox discloses the control circuitry comprises an overload device and a contactor [Fig. 4 trip contact relay 66 is an overload protection device that works in conjunction with the DSP 55, par. 0101].

With respect to Claim 60, Knox discloses the modular control unit comprises a motor connection terminal [Fig. 3 trip contacts 33 connects to the users motor contactor/circuit breaker circuit].

With respect to Claim 61, Knox discloses the machine mountable base comprises a network terminal [par. 0147 lines 8-11; par 0027].

With respect to Claim 62, Knox discloses the machine mountable base comprises at least one sensor terminal [Fig. 3 terminal 36 connecting to current transformer 37; par. 0090].

With respect to Claim 63, Knox discloses the machine mountable base comprises at least one actuator terminal [Fig. 3 trip contacts 33].

With respect to claims 64, 72 and 74 (new), Knox discloses that the modular control unit comprises an output connector configured to couple with the machine/at least one of the machines [Fig. 2, the output connector is on the bottom surface of user interface 2, which detachably connects to user interface pedestal 22 in the remote mount configuration, par. 0087 and 0088. The male portion of the connector is shown in

Fig. 2 as comprising 16, 23, and 24. The motor being controlled/protected is the "at least one of" the machines].

With respect to claim 66 (new), Knox discloses that the replaceable control unit comprises an output connector configured to couple with the motor [the output connector is coupled to the motor via transmission through the user interface umbilical 21, Fig. 2].

With respect to claims 68 and 70 (new), Knox discloses that the modular/selectable control unit comprises an output connector configured to couple with the at least one machine via a cable [Fig. 2, cable 19].

Claims 1, 16, 27, 31, 34, 51 and 64-75 are rejected under 35 U.S.C. 102(b) as being anticipated by Houf et al., U.S. Patent No. 4,769,557.

With respect to Claims 1, 16 and 51, Houf discloses a controller for a machine [Fig. 1; col. 1 lines 1-7], comprising: a machine mountable base [Fig. 1, 16] comprising a motor protection device [Fig. 2, 70; col. 4 lines 52-61]; and a modular/replaceable control unit [Fig. 1, 14] replaceably mountable to the machine mountable base [col. 5 lines 50-60], wherein the modular control unit comprises control circuitry [Fig. 1, 14; Fig. 4; col. 2 lines 61-67; col. 5 lines 20-49] configured to control the machine [each modular switching device 28 of power switching assembly 14 controls one phase of the electric power for the motor].

With respect to Claims 27, 31 and 34, Houf discloses a controller [Fig. 1; col. 1 lines 1-7] for a machine system [the machine system and system of distributed machines is the motor, its subcomponent parts, and any loads the motor is driving],

comprising: a modular/selectable control unit [Fig. 1, 14] replaceably mountable to an on-machine motor protection base [Fig. 1, 16], wherein the modular control unit comprises at least one motor control device [Fig. 1, 28; col. 2 lines 61-67] operable with at least one motor protection device [Fig. 2, 70; col. 4 lines 52-61] of the on-machine motor protection base, wherein the modular/selectable control unit comprises control circuitry [Fig. 1, 14; Fig. 4; col. 2 lines 61-67; col. 5 lines 20-49] configured to control at least one machine [switching device 28 comes in different power ratings selected for different rated machines- col. 1 lines 36-47 and 60-65] in the machine system [the machine system and system of distributed machines is the motor, its subcomponent parts, and any loads the motor is driving].

With respect to Claims 64, 66, 68, 70, 72 and 74 (new), Houf discloses that the modular control unit [Fig. 1, 14; Figs. 3] comprises an output connector configured to couple with the machine/at least one of the machines [col. 3 lines 39-55. The cable coupling the machine as recited in claim 68 is the wire connected to the terminal- col. 3 lines 46-50].

With respect to Claims 65, 67, 69, 71, 73 and 75 (new), Houf discloses that the modular control unit is selected from and interchangeable with a plurality of modular control units, each having different control circuitry [switching device 28 comes in different power ratings- col. 1 lines 36-47 and 60-65; Fig. 4].

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10-11, 22-23, and 57-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knox et al, Publication No. US 2004/0252421, in view of Hollenbeck, Patent No. 5,557,182.

With respect to Claims 10, 22, and 58, Knox teaches the controller of Claims 1 and 16 respectively, but does not teach a soft start machine controller. Knox's programmable device is implicitly capable of controlling/protecting any motor in general [par. 0002; par 0010], including a soft start motor controller, but this is not elaborated upon in the specification.

Hollenbeck teaches a control unit that comprises a soft start machine controller [col. 12 lines 13-14].

Knox and Hollenbeck are analogous means of controlling motors. It would have been obvious to one of ordinary skill in the art at the time the invention was made to specify soft start control capability to Knox for the purpose of explicitly bringing to the users attention that Knox's device is capable of controlling/ protecting all motors, including ones with soft start control. Soft start capability is desirable to prevent stressing the power supply as well as the motor windings from sudden loading, which is well known to shorten the lifespan of electrical equipment.

With respect to Claims 11, 23, and 57, Knox teaches the controller of Claims 1 and Claims 16 respectively, but does not teach a variable frequency machine drive. Knox's programmable device is implicitly capable of controlling/protecting any motor in

general [par. 0002; par 0010], including a variable frequency machine drive. However, this is not elaborated upon in the specification.

Hollenbeck teaches a control unit for a motor that comprises a variable frequency machine drive [col. 4 lines 47-52].

Knox and Hollenbeck are analogous means of controlling motors. It would have been obvious to one of ordinary skill in the art at the time the invention was made to specify variable frequency capability to Knox for the purpose of explicitly bringing to the users attention that Knox's device is capable of controlling/ protecting all motors, including ones with variable frequency machine drives. Variable frequency machine drives are a well known and desirable means of controlling induction motors because this is an efficient means of control that results in less wasted power.

### ***Response to Arguments***

Applicant's PRE-APPEAL arguments (pages 2-4) filed 05/25/2007 have been fully considered but they are not persuasive. See below. Applicant's arguments with respect to claims 65, 67, 69, 71, 73 and 75 have been considered but are moot in view of the new ground(s) of rejection by Houf et al. Patent Number 4769557 (see action above).

Applicant argues on page 2 that the user interface 2 does not control the motor to which the digital programmable motor overload protector 1 (Knox US 2004/0252421) is applied, and at best the user interface 2 (Fig. 1) may be used for programming of the motor overload protector. Firstly, in this case there is no difference between programming and control, since the programming is in fact to accomplish protective



control of the motor. See par. 0103 and 0108. Secondly, Knox explicitly states in par. 0084 that the user is provided with a menu of operational values and **configuration settings**.

"TRIP/ALARM" indicator (4). The liquid crystal display (3) displays a user selectable menu of motor operational values and configuration settings.

Knox further adds in par. 0098 that communication and **control lines** are connected to user interface 2:

1). The communications and control lines to the removable user interface (2) (as shown in FIG. 1) are carried by the Smart Card connectors in the Smart Card connector alignment block (23).

Applicant on page 3 states that the examiner's own statements contradict one another because the examiner previously stated that the DSP 55, which is not a component of user interface 2, controls the motor. This statement is not contradictory at all. As is clearly spelled in out in Knox's disclosure, user interface 2 allows the user to program the DSP 55 with configuration and protective settings, which in turn control the DSP 55 and related circuitry to accomplish protective control of the motor. Applicant appears to be saying that programming the digital programmable overload protector with *configuration and protective settings* is not control, but something else. The examiner sees no such difference between the two. Applicant argues on page 3 that Knox does not disclose short circuit protection. Knox teaches protection from ground faults- 0010.

[0010] The motor to which the protector is applied to is anticipated to be a nominally 590 volt and below low voltage motor. The electrical power sensed includes the sensing and measuring of three phase electrical currents as well as ground fault current.

**A ground fault is a type of short circuit condition.** It occurs when one live phase contacts ground. For illustrative purposes only, see the EC&M document enclosed and the action above.

Applicant argues on page 4 that Knox does not teach that the user interface 2 does not have an output connector "to couple" with a motor or machine. As previously stated: **[Fig. 2, the output connector is on the bottom surface of user interface 2, which detachably connects to user interface pedestal 22 in the remote mount configuration, par. 0087 and 0088. The male portion of the connector is shown in Fig. 2 as comprising 16, 23, and 24. The motor being controlled/protected is the "at least one of" the machines].** The term "couple" does not denote a direct electrical connection of any kind. The term "couple" means that there may be one or more intervening components between the user interface module 2 and the motor being controlled.

Applicant's final argument on page 5 is that Knox does not teach interchangeable control units, *each having different control circuitry*. Knox discloses interchangeable control units (user interface 2). However, it is agreed that since the units are identical in nature, they cannot have different control circuitry as applicant's limitations intend. New grounds of rejection under Houf et al. Patent Number 4769557 are presented for this limitation.

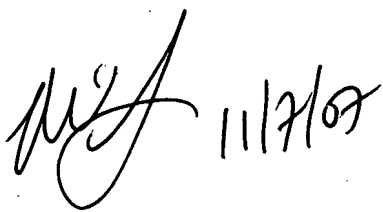
**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dharti H. Patel whose telephone number is 571-272-8659. The examiner can normally be reached on 7:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2800, Ext. 36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dharti H. Patel/  
GAU 2836  
11/07/2007

  
MICHAEL SHERRY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800